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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,821	02/25/2005	Joachim Kralik	MERCK-2978	9167

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EXAMINER

CUTLIFF, YATE KAI RENE

ART UNIT	PAPER NUMBER
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1609

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
31 DAYS	02/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/525,821

Applicant(s)

KRALIK ET AL.

Examiner

Yate K. Cutliff

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-14 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This is a 371 National Stage Application of PCT/EP2003/08513. Claims 1-14 are currently pending in this application.

Election/Restrictions

2. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

Specifically, due to the numerous variables in the claims, i.e. R^1 , R^2 , R^3 and R^4 for the amino ketones of formula II, and their widely divergent meanings, a precise listing of inventive groups cannot be made. The following groups are exemplary:

Group I, claims 1 – 14 drawn to the process for preparation of an amino alcohol according to claim 5 in part, and wherein R^1 , is an aromatic carbocyclic such as a phenyl as defined in claim 2, and R^2 is a methyl as defined in claim 3, and n is 1 as defined by claim 4, and the catalyst of formula A is a transition-metal complex containing rhodium or salts thereof as defined in claim 7.

Group II, claims 1 – 14 drawn to the process for preparation of amino alcohol claim 5 in part and not covered by Group I, wherein R^1 , is a heterocyclic radical such as 2-thienyl as defined in claim 2 and R^2 is a methyl as defined in claim 3, and n is 1 as defined by claim 4, and the catalyst of formula A is a transition-metal complex containing rhodium or salts thereof as defined in claim 7.

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Group III, claims 1- 4, and 6 - 14 drawn to the process for preparation of amino alcohol not covered by Groups I and II, wherein R^1 is aromatic carbocyclic which is unsubstituted or mono- or polysubstituted by R^3 and/or R^4 (wherein R^3 and R^4 are as defined), and R^2 is C_{1-20} alkyl, and n is 0-3, and a catalyst of formula A, as defined.

Group IV, claims 1- 4, and 6 - 14 drawn to the process for preparation of amino alcohol covered by Groups I, II and III, wherein R^1 is heterocyclic which is unsubstituted or mono- or polysubstituted by R^3 and/or R^4 (wherein R^3 and R^4 are as defined), and R^2 is C_{1-20} alkyl, and n is 0-3, and a catalyst of formula A as defined.

Group V, claims 1- 4, and 6 - 14 drawn to the process for preparation of amino alcohol covered by Groups I and II, wherein R^1 is aromatic carbocyclic which is unsubstituted or mono- or polysubstituted by R^3 and/or R^4 (wherein R^3 and R^4 are as defined), and R^2 is H, and n is 0-3, and a catalyst of formula A as defined.

Group VI, claims 1- 4, and 6 - 14 drawn to the process for preparation of amino alcohol covered by Groups I, II and III, wherein R^1 is heterocyclic which is unsubstituted or mono- or polysubstituted by R^3 and/or R^4 (wherein R^3 and R^4 are as defined), and R^2 is H, and n is 0-3, and a catalyst of formula A as defined.

Group VII, claims 1- 4, and 6 - 14 drawn to the process for amino alcohol not covered by Groups I-VI.

Therefore, the claims herein lack unity of invention because lack of unity exists between all of the various combinations.

3. The inventions listed as Groups I - VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons.

The technical feature linking Groups I - VI, the process for the preparation of amino alcohols, is the utilization of a compound of formula II. However, G. Helmchen et al.: "HOUBEN-WEYL Methods of Organic Chemistry; Additional and Suppl. Vol. to the 4th ED. Vol. E 21 D, Stereoselective Synthesis (Pages 3995-3997, Chapter 2.2.1.2.7)" 30 November 1995 (1995-11-30), George Thieme Verlag, Stuttgart - New York XP002262293, ISBN: 3-13-100114-3; teaches a process of using a compound of formula II to make amino alcohols of formula I as taught by Applicant's invention. Therefore, the technical feature linking the inventions of Groups I - VII does not constitute a special technical feature as defined by PCT Rule 13.2, as it does not define a contribution over the prior art.

Accordingly Groups I - VII are not so linked by the same or a corresponding special technical feature as to form a single general inventive concept.

Election of Species

4. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

Species A: The transition-metal complexed to a chiral diphosphine ligand according to formula A of claims 1, 6 and 7 used in the processes of Groups I-VII as set out above, and as defined to contain individually specific functional groups with respect

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to R^5 through R^{12} , m, and R^5 , R^6 and R^7 as defined and/or defined as B which contains individually specific functional groups Y, Z, Q in claim 1.

Species B: The transition-metal complexed to a chiral diphosphine ligand according to formulas A1 to A5 of claim 8 used in the processes of Groups I-VII as set out above, and as defined to contain individually specific functional groups with respect to Ph, X, and R' as defined in claim 8.

In addition to electing a single compound of formula II for use in the processes of Groups I-VII, applicant must elect a single species to which claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify claims readable on the elected species, including any claims subsequently added. Even if applicant traverses this requirement an election of species must be made. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species.

MPEP § 809.02(a).

5. The claims are deemed to correspond to the species listed above in the following manner:

Species A: Claims 1, 6 and 7 (in part)

Species B: Claim 8 (in part)

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The species lack unit because they differ in elements, bonding arrangements and chemical structure to such an extent that at reference anticipating any one group would not render the other group obvious, thus unpatentability of any group would not necessarily imply unpatentability of another group. The varying classes and subclasses of each diverse structure as delineated will constitute an enormous search burden.

6. The following claim(s) are generic: Claims 1 and 6-8.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species and invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one

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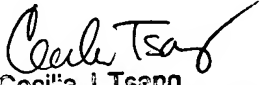
or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yate K. Cutliff whose telephone number is (571) 272-9067. The examiner can normally be reached on M-TH 8:30 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia Tsang can be reached on (571) 272 - 0562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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